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Masataka Kato

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BROWDY AND NEIMARK, P.L.L.C.
624 NINTH STREET, NW
SUITE 300
WASHINGTON, DC 20001-5303

EXAMINER

HANNON, THOMAS R

ART UNIT

PAPER NUMBER

3682

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 3682

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 8 contains subject matter that is not described in the specification as it combines two distinct mutually exclusive embodiments. That is, claim 1 as now amended includes specific structure related to Figures 1-3, namely the outside rotating member having recessed opposite ends to form setbacks, with the flange and the circulate plate fitting in the setbacks. Claim 8, which depends from claim 1, includes specific structure related to Figures 7-9, namely the outer ring having flanges at axially opposite ends thereof, with the rollers being embraces inside the flanges. These two structures of the outer race in one claim are inconsistent with the original disclosure.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding claim 8, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-6, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nightingale US 3,596,533 in view of Glodin et al. US 4,223,963.

Nightingale discloses a rolling-contact bearing comprising an inside rotating member (10) having a guideway area made thereon with a first raceway (16), an outside rotating member (26) rotary relative to the inside rotating member and having a second raceway (28), and a cage (64) with rollers (18) spaced at a preselected interval around the cage to roll through a race defined between the first raceway on the inside rotating member and the second raceway on the outside rotating member; the inside rotating member is a stud having a flange (14) integral with one of axially opposite ends of the guideway area and a rod (threaded end 12) integrally extending from another of the axially opposite ends of the guideway area and a circular plate (22) fitting over the rod of the stud, wherein the outside rotating member is an outer ring recessed at axially opposite ends thereof to form setbacks (30, 32), thereby providing an intermediate area midway between the setbacks forming the second raceway, and wherein the flange on the stud fits in one of the setbacks while the circular plate fits in the other of the setbacks. Glodin discloses an antifriction bearing wherein the cage with the rolling elements is

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formed together with solid lubricant to lubricate the rolling elements running through the race into a complete unitary molding with the rolling elements being kept exposed partially at their circular rolling-surfaces out of an inside circular surface of the complete unitary molding. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the bearing assembly of Nightingale such that the cage member is molded with a solid lubricant, because this is taught and suggested by Glodin as increasing the service durability of a conventional bearing, and to prolong its life. With respect to the claim language directed toward “a separate unitary molding” which can be “engaged or disengaged out of the race”, it is noted that it is structure and not the process of making limitations which define a product claim. The final product structure required of claim 1 is found and/or suggested by the combination of Nightingale in view of Glodin. Additionally, with respect to claims 10-12, the process steps and the particular structure of a mold that can be used to form the molded product, do not further add any structural limitations to the claims that would define patentably over the applied references.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nightingale in view of Glodin et al. as applied to claim 1 above, and further in view of Herber et al. US 6,267,510.

Herber discloses a roller bearing in which the outer surface of the outer rotary member has a spherical configuration. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the outer surface of the outer member of Nightingale such that it includes a spherical configuration, because this is taught and suggested by Herber as providing the desired benefit of avoiding additional edge stresses from alignment errors.

Claims 9, 14, and 16-18 are allowed.

Applicant's arguments filed June 29, 2006 have been fully considered but they are not persuasive. In Applicant's remarks it is stated, "The claimed invention is primarily directed to a unitary molding comprising a cage and rollers engaged together by a lubricant which is engageable or disengageable from an assembled cylindrical race." This is not what is primarily claimed by the present claims. Claim 1 includes structure relating to the inner and outer members including raceways, and now setbacks and a flange and circular plate. The claim combination is much more than a simple cage and roller combination. Moreover, as claimed as a product claim, the scope of the claim is limited by the structure of the product, not in its method of assembly. In addition, the combined teaching of Nighingale and Glodin define the structure of the cage assembly, and inherently encompass the ability of being engageable and disengageable from the assembled cylindrical races. Note that the language of "engageable" and "disengageable" is interpreted to mean "able to be engaged" or "able to be disengaged". The cage and roller structure of Nighingale, when modified with Glodin would certainly be able to engage the cylindrical races, and be able to be disengaged with a removal of the cover plate.


As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas R. Hannon whose telephone number is (571) 272-7104. The examiner can normally be reached on Monday-Thursday (8:30-7:00).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Thomas R. Hannon
Primary Examiner
Art Unit 3682

trh